AMENDMENT UNDER 37 C.F.R. § 1.111

U.S. Application. No.: 10/540,514

Attorney Docket No: Q88664

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the

application:

LISTING OF CLAIMS:

1. (Original) A compound semiconductor epitaxial substrate for use in a strain channel

high electron mobility field effect transistor, comprising an InGaAs layer as a strain channel

layer and an AlGaAs layer containing n-type impurities as an electron supplying layer, wherein

said InGaAs layer has an emission peak wavelength at 77 K of 1030 nm or more.

2. (Original) The compound semiconductor epitaxial substrate according to claim 1,

wherein GaAs layers are provided as spacer layers in contact with a top surface and a bottom

surface of said InGaAs layer, respectively.

3. (Original) The compound semiconductor epitaxial substrate according to claim 2.

wherein each of said GaAs layers has a thickness of 4 nm or more.

4. (Original) The compound semiconductor epitaxial substrate according to claim 1,

wherein said InGaAs layer has an electron mobility at 300 K of 8300 cm²/V·s or more.

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- 5. (currently amended) A method for manufacturing the a compound semiconductor epitaxial substrate according to claim 1, 2, 3, or 4 that comprises an InGaAs layer as a strain channel layer and an AlGaAs layer containing n-type impurities as an electron supplying layer, wherein said InGaAs layer has an emission peak wavelength at 77 K of 1030 nm or more, said method comprising epitaxially growing each compound semiconductor layer by employing a metalorganic chemical vapor deposition (MOCVD) method.
- 6. (new) The method according to Claim 5, wherein GaAs layers are provided as spacer layers in contact with a top surface and a bottom surface of said InGaAs layer, respectively.
- 7. (new) The method according to Claim 6, wherein each of said GaAs layers has a thickness of 4 nm or more
- 8. (new) The method according to Claim 5, wherein said InGaAs layer has an electron mobility at 300 K of 8300 cm²/V·s or more.